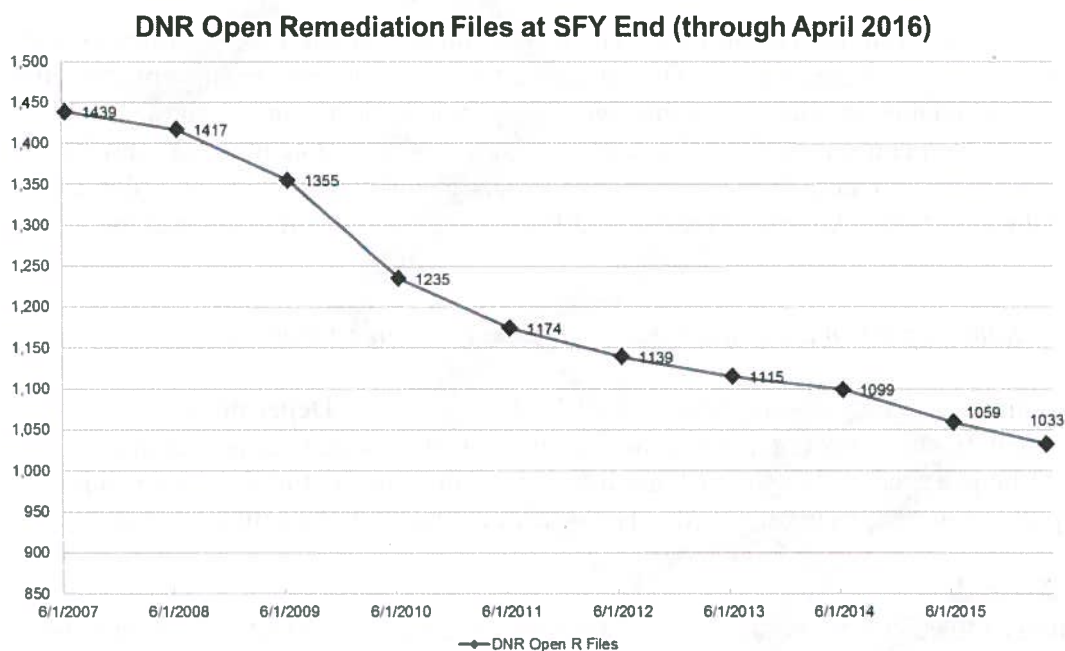


STRATEGIES FOR BACKLOG REDUCTION

In an effort to address the backlog of 1097 sites as of March 2014 and to expedite the pace of cleanups in the state, on March 11, 2014, the Department and PSTIF finalized a joint backlog reduction plan. This plan identified five strategies where additional focus was placed during 2014/2015 to help expedite the pace of cleanups in Missouri. This report documents actions and progress that the Department has implemented in each strategy.

The overall number of remediation sites (backlog), or active cleanup projects in Missouri continues to decrease.



A. Improving processes to address contamination at sites where progress is not being accomplished and a viable responsible party exists.

- 1) *Identify and focus on sites where a cleanup is unfinished and a viable party is responsible for completing it.*

The Department and PSTIF identified 52 sites where a cleanup had not been completed but a viable party was responsible for completing it. In most of these cases, PSTIF's \$10,000 deductible has been met, yet the cleanup was not progressing.

Because there was viable responsible party for many of these releases and because cleanup costs are being reimbursed by the PSTIF, it was felt that there is a greater likelihood that these cleanups can be prompted to proceed expeditiously.

The Department did responsible party research and sent letters to the property owners and/or responsible party for all 52 of these files in 2014.

In summary, at this time, three sites have received a no further action letter, thirty five sites have agreed to reengage on cleanup activities and sent in work plans or reports, and eleven have been classified as abandoned.

There are three sites that were not responsive and those sites have been referred to the Compliance and Enforcement Section (CES).

For sites referred to the Compliance and Enforcement Section (CES), the CES coordinates with the Tanks Section's Project Managers and Department attorneys to determine appropriate actions to prompt action to be taken by the responsible party (ies). Such efforts may include administrative orders on consent, unilateral orders or other enforcement actions that may be warranted to compel compliance. If the facility fails to satisfactorily respond to an order, CES staff will refer the case to the Attorney General's Office (AGO) to file suit to compel the cleanup.

2) Improve follow-up when the responsible party fails to act in a timely manner.

As part of the joint plan for addressing Missouri's LUST backlog, the Department has implemented a new tracking system that reminds project managers when the next step of a project is due to be received. This ensures that follow up letters are sent to the responsible parties to keep the projects moving forward. The system continues to be refined to enhance its usability.

At the beginning of the 2014 calendar year, the Department identified 487 sites for which the Department had not received any correspondence for over a year. This meant that potentially 44% of the remediation projects were not moving and stalled. Of the 487 sites that the Department has already attempted to re-engage responsible parties on, one hundred and seventy-three (188) of the sites have been found to be abandoned. Future actions on abandoned sites are discussed in item D of this report.

The Department has identified an additional 32 sites that are abandoned, but a willing voluntary party has stepped up to address the cleanup. A couple of these cleanups have also stalled and the Department is evaluating steps to get these cleanups moving forward.

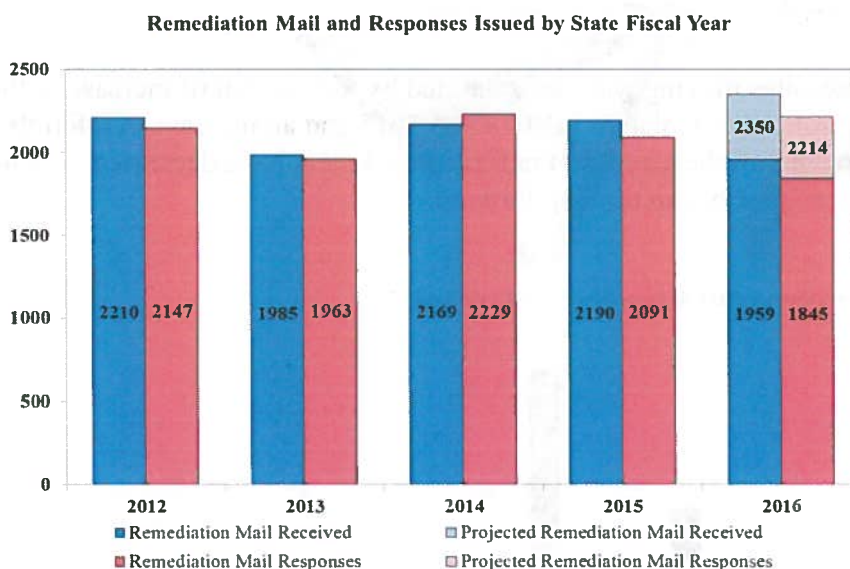
The Department has followed up on all of the sites that were not found to be abandoned and requested that the responsible party get the remediation project moving forward. These sites were sent over 500 follow up letters, and over 1,000 e-mails, and/or phone calls throughout the year to keep the projects moving forward. The Department held several meetings on these sites with tank owners/operators, property owners, consultants and the PSTIF to move these sites

forward. Several sites were also involved in the dispute resolution process discussed in this report.

The Department recently pulled the same query of remediation projects for which mail was not received for over one year and was not an abandoned site. This query identified that 73 remediation projects had not submitted mail in the last year. A review of these sites indicated that the Department had been currently engaging the responsible party on all but 4 of these projects. The Department is doing responsible party/ownership research on 4 remediation projects to determine if a viable responsible party still exists for the Department to require move these projects forward or if these projects will be considered abandoned. We anticipate the research will be concluded by July 2016.

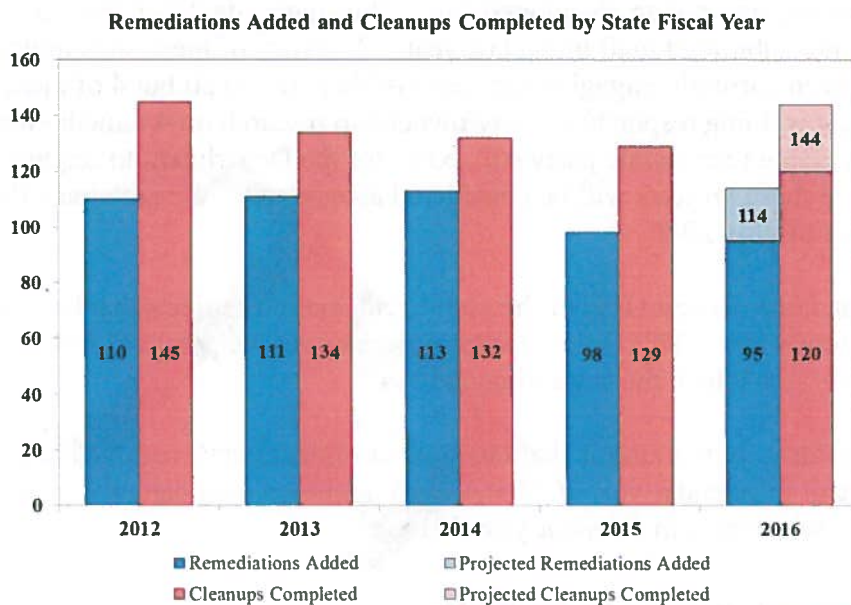
This indicates that less than one percent (1%) of the active remediation projects that have a responsible party are currently idle. This is a vast improvement over the potential forty four (44%) of the idle sites that were idle at the beginning of 2014.

An indication that these efforts are working is that the number of documents received and reviewed by the Department in calendar year 2014 and 2015 increased over calendar year 2013 and is on pace to continue to increase in calendar year 2016.

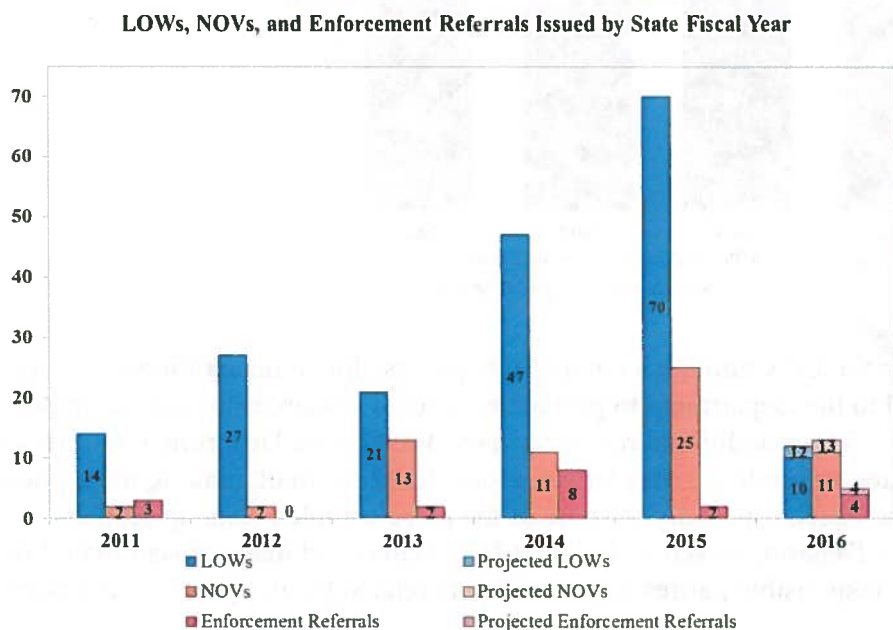


The Department applied to the EPA through a competitive process for some additional funding. This funding was awarded to the Department to provide additional resources to conduct review of remediation documents. These additional resources have allowed the Department to increase efforts on engaging idle sites by sending status letters, more electronic mail, making more phone calls, and making more site visits; especially to some of the more complex cleanup projects. Over the last two years, the Department sent out almost 5,000 letters and made or sent over 2,000 phone calls and e-mails to responsible parties and consultants related to site specific work plans, reports and information.

In addition, the Department was able to increase the number of no further action letters in 2014 over those in 2013. The Department was able maintain these efforts through 2015 and projects a slight increase in no further action letters issued in 2016.



The Department's efforts to get sites moving was demonstrated by the amount of increase in the number of letters of warning, notices of violation in 2014 and 2015 and an increase in referrals to enforcement in 2014. The number of these types of enforcement letters have decreased now that most of the remediation projects have begun moving forward.



The Department's Tanks Section Chief and the PSTIF Claims Manager have stressed an increase in communication between the Tanks Section Staff and the PSTIF adjusters. These efforts have led to an improved working relationship between the Department and PSTIF. This improved relationship is critical to continuing to working together in getting remediation projects moving forward.

B. Providing training to consultants so that they better understand what the DNR expects/requires in doing site characterization, risk assessment, or corrective action activities.

The Department and PSTIF collaborated on several training opportunities to provide remediation information to consultants. This has been done by conducting conference trainings, conducting webinar trainings, and by disseminating training opportunities to tank consultants. These trainings were provided for free to the consultants and tank owners. This included Department staff attending the Interstate Technology & Regulatory Council (ITRC's) Light Non-Aqueous Phase Liquid (LNAPL) training with PSTIF staff and Missouri tank consultants.

PSTIF and the Department conducted several joint webinars on such topics as BOS@200 technology, risk assessment training, horizontal remediation wells, Missouri's One Call Law, and soil boring installation. The Department held several seminars on Peroxychem Alkaline Activated Kloxur® Persulfate and Laser Induced Fluorescence. The Department also disseminated information on independent seminars on soil boring log information, slug testing, aquifer testing, and rock core logging from Midwest Geosciences group, and Biofuels, mass flux and mass discharge, as well as groundwater statistics from the Interstate Technology and Regulatory Council.

The Department also continued to hold a one day workshop on tank remediation topics as part of the Missouri Waste Control Coalitions (MWCC) Annual Conference at the Lake of the Ozarks. The tanks workshop, held as a tract at the conference, features Department staff and consultants providing seminars on remediation issues.

The PSTIF Claims Manager and Department Tanks Section Staff continue to attend national conferences and the Department continues to serve on national workgroups and bring what they learn back to our state to try to provide new ideas to the cleanup process.

However, participation at these events by consultants could be better. The Department and PSTIF need to figure out how to increase getting more participation from consultants, possibly by providing continuing education credits for Professional Engineers, Certified Hazardous Materials Managers, etc.

C: Enhancing communication to resolve issues at sites where the DNR/PSTIF/consultant disagree on what should be done or how it should be done.

The Department Tanks Section Chief and the PSTIF Claims Manager have continued to meet approximately once a month to review files where there are disagreements between the Department, PSTIF, or the consultant/RP. The PSTIF Claims Manager and the Department's

Tanks Section Chief have discussed and resolved issues on several projects and agreed to compromised on several others. Several others have been elevated to the PSTIF Executive Director and the Department's Division of Environmental (DEQ) Quality Deputy Director to review the project. Several of these have been resolved and several are still pending. In some cases, the PSTIF has agreed to conduct additional analysis of the data or collect additional data to move the site forward. In a couple of cases, the Department provided some clarification on the evaluation and was able to close the project.

The Department and PSTIF should examine the dispute resolution process to explore improvements that could be made to the process. Improvements to be explored include ensuring that timelines are met by the Tanks Section Chief and PSTIF Claims Manager, a technical meeting between staffs of both agencies with the PSTIF Executive Director and the Department's DEQ Deputy Director so that all information is heard at the same time, and adding timelines for review by the PSTIF Executive Director and the Department's DEQ Deputy Director.

D: Identifying cleanups where progress has not occurred because there was no viable responsible party (abandoned sites).

At the start of this project, the Department had identified 117 releases from underground and aboveground storage tanks where no viable responsible party existed. As the Department has begun to review some of the stalled projects, some of these projects were found to have RP's that are now deceased or have shown an inability to pay for the remediation.

The Department's list of abandoned releases has grown to 188 release projects where no viable responsible party exists and no one is conducting investigation and remediation activities. The Department also identified 32 sites where a responsible party is deceased or not viable, but another party, such as the land owner, has stepped up to address the investigation and remediation activities at the site.

Because there is not an RP or other party moving these sites forward, the Department will allocate its resources to moving sites with RP's forward first and work on strategies to move these abandoned facilities forward as time allows.

Backlog II

The PSTIF Claims Manager and DNR Tanks Section Chief reviewed 27 PSTIF "pre-existing remedial claims." (I.e., where a release was confirmed before the tanks were insured, the tanks that leaked are still in use, and PSTIF benefits will be lost if coverage lapses.) The Department reviewed work plans and schedules from the consultant for getting each remediation project finished, (i.e., a NFA letter issued). They track progress quarterly until the 27 cleanups are completed or abandoned. Four of these sites have been issued the no further action letter, twenty two sites are being engaged by DNR to keep them moving forward, and one sites has been deemed to be abandoned.

Future Actions

- Focus efforts on moving all sites forward and not allow sites to become idle again. The Department will continue to meet follow up timelines and will refer projects to the Hazardous Waste Program's Compliance and Enforcement Section that do not engage the Department in moving towards closure.
- Continue to offer training to consultants and staff. Participation at these events by consultants could be better. The Department and PSTIF need to figure out how to increase getting more participation from consultants, possibly by providing continuing education credits for Professional Engineers, Certified Hazardous Materials Managers, etc.
- Continue the Dispute Resolution Process, but look at examining the dispute resolution process to explore improvements that could be made to the process. Improvements to be explored include ensuring that timelines are met by the Tanks Section Chief and PSTIF Claims Manager, a technical meeting between staffs of both agencies with the PSTIF Executive Director and the Department's DEQ Deputy Director so that all information is heard at the same time, and adding timelines for review by the PSTIF Executive Director and the Department's DEQ Deputy Director.
- Continue the increased communication and cooperation efforts with the PSTIF Claims Manager, Tanks Section Chief and their respective staffs.
- Continue to monitor the 22 Backlog II remediation projects and ensure that the remediation project moves forward.
- Enhance enforcement efforts – provide more timely follow up when RP does not move forward, use of Administrative Orders, and Open to meeting with PSTIF staff to discuss disagreements but if not able to resolve, then move forward with Attorney General's Office (AGO) referrals

Additional Ideas for Efficiencies in the Remediation Process

1. Problem – 226 sites have free product recovery issues and are not moving forward timely enough. The Department and PSTIF developed a fact sheet, but has not increased the pace of remediation projects

Potential Solution – The Department Developed a “how to guidance for Hazardous Waste Program (HWP) Staff

- Sent out to consultants for comments
- Comment due back on June 23
- Will discuss at MWCC Conference

MoDNR participating in ITRC updates on free product (FP) documents

2. Problem – PSTIF indicates over 100-200 sites stalled at stage of plume stability
 - PSTIF and the Department in negotiations about experts to help in the process
 - The Department has suggested using a national expert and firm that is a neutral party to advise us on the process
3. Problem – reports from consultant are not easy to review and are not complete.

Potential solution - development of template reports.

- Gives consultants guidelines on what should be included in report
- Review by MoDNR easier and more timely
- Ensures that all information needed is provided
- Should decrease back and forth comment letters
- More timely closure

4. Problem – DNR approves work/PSTIF doesn't approve full scope

Potential solution - submit draft site characterization work plans to PSTIF and then submit to MoDNR

- Proposed to PSTIF in Jan. 19, 2010 letter
- Could also be done for additional areas, such as groundwater monitoring (plume stability), FPR, etc.

5. Problem – restrictive covenants take time to get through review process

Potential solution – modify process of review

- Use the templates with no changes – no review by legal (unless staff have questions)
- Changes of language require legal review and discussion
- Improve timeliness of closure of sites

6. Problem – consultants do not know “how to meet the mark”

Potential solution - additional “how to” guidance documents from MoDNR

7. Problem – Consultants not meeting deadlines

Potential Solutions - continue to meeting with David Walters and consultants to discuss issues with MoDNR and Williams and Company

8. REMOVE THE \$10,000 DEDUCTIBLE AS AN OBSTACLE - COLLECT IT WHILE OR EVEN AFTER A CLEANUP HAPPENS

- Benefit: Cleanups could be funded and move forward and the deductible could be collected.
- Willing claimant option: Underfunded claimant voluntarily allows the property to become encumbered to satisfy the deductible. Claimant to execute documents allowing the deductible to be paid out of the proceeds of the sale of the cleaned up property. Claimant gets to sell a remediated, marketable property rather than be saddled with an unmarketable, contaminated property.
- Less-willing claimant option: MoDNR/PSTIF could explore asserting mechanic’s liens, obtaining confessions of judgment, or assert rights to payment under 319.131.4, the section that creates the deductible.
Payment of deductible is not a prerequisite to PSTIF funding a cleanup. 10 CSR 100-5.010(12)(F) allows reimbursements of eligible costs, less the deductible.

